<u>List of Claims</u>:

Claim 1 (currently amended): The [[A]] method of ~~pitch enhancement in a speech compression system, the method~~ claim 10 comprising:

~~providing a fixed codebook comprising at least two fixed subcodebooks;~~

~~selecting one of the at least two fixed subcodebooks;~~

calculating [[a]] the pitch enhancement coefficient based on the one of the at least two fixed subcodebooks, wherein the pitch enhancement coefficient is calculated according to a quantized long term predictor gain of a previous subframe multiplied by a factor that is different for each of the at least two fixed subcodebooks [[;]]

~~applying a pitch enhancement in response to the pitch enhancement coefficient and the one of the at least two fixed subcodebooks.~~

Claim 2 (currently amended): The method of claim 1, where applying [[a]] the pitch enhancement further comprises calculating a pitch-enhanced signal from a codevector selected from the one of the at least two fixed subcodebooks, a pitch lag, and the pitch enhancement coefficient.

Claim 3 (canceled)

Claim 4 (previously presented): The method of claim 2, where the signal is calculated during a search through the one of the at least two fixed subcodebooks.

Claim 5 (previously presented): The method of claim 2, where the signal is calculated during an iterative search through the one of the at least two fixed subcodebooks.

Claim 6 (original): The method of claim 1, where the pitch enhancement coefficient is a mathematical factor from 0.0 to 1.0.

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Claim 7 (original): The method of claim 1, where the pitch enhancement is applied both forward and backward.

Claim 8 (original): The method of claim 7, where the pitch enhancement coefficient is applied to pulses selected from the group consisting of forward, backward, and forward and backward pitch pulses, of a main pulse.

Claim 9 (original): The method of claim 8, where pitch enhancement coefficient is applied to a first power.

Claim 10 (previously presented): A method of pitch enhancement in a speech compression system, the method comprising:

providing a fixed codebook comprising at least two fixed subcodebooks;

selecting one of the at least two fixed subcodebooks;

calculating a pitch enhancement coefficient dependent upon the one of the at least two fixed subcodebooks;

applying a pitch enhancement in response to the pitch enhancement coefficient and the one of the at least two fixed subcodebooks;

where the pitch enhancement is applied both forward and backward, where the pitch enhancement coefficient is applied to pulses selected from the group consisting of forward, backward, and forward and backward pitch pulses, of a main pulse, and where pitch enhancement coefficient is applied to a first power for pulses one pitch lag away from the main pulse, and the pitch enhancement coefficient are applied to a second power for pulses two pitch lags away from the main pulse.

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Claim 11 (previously presented): The method of claim 10, where the pitch enhancement coefficient is $0.75 \cdot g_{a\_m}$, where the value of $0.75 \cdot g_{a\_m}$ is constrained to be between 0.5 and 1.0, inclusive, where g_{a_m} is a quantized long term predictor gain of a previous subframe.

Claim 12 (previously presented): The method of claim 10, where the pitch enhancement coefficient is $0.25 \cdot g_{a\_m}$ and the value of $0.25 \cdot g_{a\_m}$ is constrained to be between 0.0 and 0.5, inclusive, where g_{a_m} is a quantized long term predictor gain of a previous subframe.

Claim 13 (previously presented): The method of claim 10, where the pitch enhancement coefficient is 0.

Claim 14 (previously presented): The method of claim 10, where the pitch enhancement coefficient is $1.0 \cdot g_a$ and the value of $1.0 \cdot g_a$ is constrained to be between 0.5 and 1.0, inclusive, where g_a is a quantized pitch gain.

Claim 15 (previously presented): The method of claim 10, where the pitch enhancement coefficient is $0.5 \cdot g_a$ and the value of $0.5 \cdot g_a$ is constrained to be between 0.0 and 0.5 inclusive, where g_a is a quantized pitch gain.

Claim 16 (previously presented): The method of claim 1, where the selecting the one of the at least two fixed subcodebooks and the calculating the pitch enhancement coefficient are accomplished by using at least one factor selected from the group consisting of a pitch correlation, a residual sharpness, a noise-to-signal ratio, and a pitch lag.

Claim 17 (original): The method of claim 1, where the method is applied to a selectable mode vocoder (SMV) system.

Claim 18 (original): The method of claim 1, where the method is applied to a code-excited linear prediction (CELP) system.

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Claim 19 (currently amended): The [[A]] speech coding system of claim 28

comprising:

a fixed codebook comprising at least two fixed subcodebooks; and

the [[a]] pitch enhancement coefficient calculated based on the one of the at least two

fixed subcodebooks, wherein the pitch enhancement coefficient is calculated according to a

quantized long term predictor gain of a previous subframe multiplied by a factor constant number

that is different for each of the at least two fixed subcodebooks [[;]]

a pitch enhancement based on the pitch enhancement coefficient and the one of the at

least two fixed subcodebooks.

Claim 20 (previously presented): The speech coding system of claim 19, where the

pitch enhancement comprises a pitch-enhanced signal calculated from a pitch lag, a codevector

selected from the one of the at least two fixed subcodebooks, and the pitch enhancement

coefficient.

Claim 21 (cancelled)

Claim 22 (previously presented): The speech coding system of claim 20, where the

pitch-enhanced signal is calculated during a search through the one of the at least two fixed

subcodebooks.

Claim 23 (previously presented): The speech coding system of claim 20, where the

pitch-enhanced signal is calculated during an iterative search through the one of the at least two

fixed subcodebooks.

Claim 24 (original): The speech coding system of claim 19, where the pitch

enhancement coefficient is a mathematical factor from 0.0 to 1.0.

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Claim 25 (original): The speech coding system of claim 19, where the pitch enhancement is applied forward and backward.

Claim 26 (original): The speech coding system of claim 25, where the pitch enhancement coefficient is applied to pulses selected from the group consisting of forward, backward, and forward and backward pitch pulses of a main pulse.

Claim 27 (original): The speech coding system of claim 26, where the pitch enhancement coefficient is applied to a first power in calculating the signal.

Claim 28 (previously presented): A speech coding system comprising:

a pitch enhancement coefficient;

a fixed codebook comprising at least two fixed subcodebooks; and

a pitch enhancement based on the pitch enhancement coefficient and the one of the at least two fixed subcodebooks, wherein the pitch enhancement coefficient is dependent on the selected fixed subcodebook, where the pitch enhancement is applied forward and backward;

where the pitch enhancement coefficient is applied to pulses selected from the group consisting of forward, backward, and forward and backward pitch pulses of a main pulse;

where the pitch enhancement coefficient is applied to a first power for pulses one pitch lag away from the main pulse, and the pitch enhancement coefficient is applied to a second power for pulses two pitch lags away from the main pulse.

Claim 29 (previously presented): The speech coding system of claim 28, where the pitch enhancement coefficient is $0.75 \cdot g_{a\_m}$ and the value of $0.75 \cdot g_{a\_m}$ is constrained to be between 0.5 and 1.0, inclusive, where g_{a_m} is a quantized gain of a previous subframe.

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Claim 30 (previously presented): The speech coding system of claim 28, where the pitch enhancement coefficient is 0.25 . g_{a_m}, and the value of 0.25 . g_{a_m} is constrained to be between 0.0 and 0.5, inclusive, where g_{a_m} is a quantized long term predictor gain of a previous subframe.

Claim 31 (previously presented): The speech coding system of claim 28, where the pitch enhancement coefficient is 0.

Claim 32 (previously presented): The speech coding system of claim 28, where the pitch enhancement coefficient 1.0 . g_a and the value of 1.0 . g_a is constrained to be between 0.5 and 1.0, inclusive, where g_a is a quantized pitch gain.

Claim 33 (previously presented): The speech coding system of claim 28, where the pitch enhancement coefficient is 0.5 . g_a and the value of 0.5 . g_a is constrained to be between 0.0 and 0.5 inclusive, where g_a is a quantized pitch gain.

Claim 34 (previously presented): The speech coding system of claim 19, where the algorithm uses at least one factor selected from the group consisting of a pitch correlation, a residual sharpness, a noise-to-signal ratio, and a pitch lag in calculating the signal.

Claim 35 (original): The speech coding system of claim 19, where the speech compression system is a selectable mode vocoder (SMV) system.

Claim 36 (original): The speech coding system of claim 19, where the speech compression system is a code excited linear prediction (CELP) system.

Claims 37-41(cancelled)

Claim 42 (previously presented): The method of claim 1, wherein for a first type speech classification the pitch enhancement coefficient is calculated according to a quantized long term

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predictor gain of a previous subframe multiplied by a factor that is different for each of the at least two fixed subcodebooks, and wherein for a second type speech classification pitch enhancement coefficient is calculated according to a quantized long term predictor gain multiplied by a factor that is different for each of the at least two fixed subcodebooks.

Claim 43 (previously presented): The method of claim 42, wherein the first type speech classification includes speech signals having a harmonic structure, and wherein the second type speech classification includes speech signals having a non-harmonic structure.

Claim 44 (previously presented): The method of claim 1, where the pitch enhancement coefficient is $0.25 \cdot g_{a\_m}$, and the value of $0.25 \cdot g_{a\_m}$ is constrained to be between 0.0 and 0.5, inclusive, where g_{a_m} is the quantized long term predictor gain of the previous subframe.

Claim 45 (previously presented): The speech coding system of claim 19, wherein for a first type speech classification the pitch enhancement coefficient is calculated according to a quantized long term predictor gain of a previous subframe multiplied by a factor that is different for each of the at least two fixed subcodebooks, and wherein for a second type speech classification pitch enhancement coefficient is calculated according to a quantized long term predictor gain multiplied by a factor that is different for each of the at least two fixed subcodebooks.

Claim 46 (previously presented): The speech coding system of claim 45, wherein the first type speech classification includes speech signals having a harmonic structure, and wherein the second type speech classification includes speech signals having a non-harmonic structure.

Claim 47 (previously presented): The speech coding system of claim 19, where the pitch enhancement coefficient is $0.25 \cdot g_{a\_m}$, and the value of $0.25 \cdot g_{a\_m}$ is constrained to be

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between 0.0 and 0.5, inclusive, where g_{a_m} is the quantized long term predictor gain of the

previous subframe.

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